User's Guide

EVGA H55V Motherboard

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Congratulations!

Thank you for purchasing this EVGA H55 Chipset based motherboard.

This motherboard from EVGA offers high performance, quality features and superior support. If you have any questions about this product please visit www.evga.com to read the EVGA FAQ, visit our forums or contact us directly.

Parts NOT in the Kit

This kit contains all the hardware necessary to install and connect your new EVGA H55 Motherboard. However, it does not contain the following items that must be purchased separately to make the motherboard functional.

- ❑ **Intel Socket 1156 Processor**
- ❑ **DDR3 System Memory**
- ❑ **Socket 1156 Cooling fan**
- ❑ **Power Supply**

EVGA assumes you have purchased all the necessary parts needed to allow for proper system functionality. For a full list of supported CPU's on this motherboard, please visit http://www.evga.com/support/motherboard/.

When replacing a motherboard in a system case, you will need to reinstall an operating system even though the current hard disk may already have an operating system

Hardware Installation

This section will guide you through the installation of the motherboard.

The topics covered in this section are:

- ❑ Preparing the motherboard
- ❑ Installing the motherboard
- ❑ Connecting cables

Preparing the Motherboard

Installing the CPU

Be very careful when handling the CPU. Hold the processor only by the edges and do not touch the contacts on the motherboard or CPU. **Any physical damage to the motherboard pins will void the warranty.**

Use the following procedure to install the CPU onto the motherboard:

1. Unhook the socket lever by pushing *down* and *away* from the socket.

2. Pull the socket lever back and the load plate will automatically lift. There is a protective socket cover within the CPU socket to protect the socket when there is no CPU installed.

3. Remove the protective socket cover from the CPU Socket in a straight up motion.

   Note: You **must** save the protective cover so that whenever you remove the CPU the pins will not be protected.

4. Align the notches in the processor with the notches on the socket.

5. Lower the processor straight down into the socket without tilting or sliding it into the socket

6. Lower the load plate so it is resting on the CPU.

7. Pull back the socket lever again to ensure the load plate tip engages under the shoulder screw cap.

8. Carefully close and latch the lever.
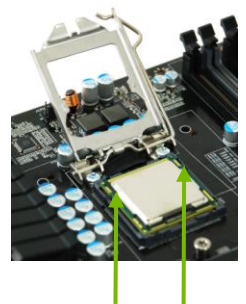
Align notches with notches on the CPU

Installing the CPU Fan

There are many different fan types that can be used with this motherboard. Follow the instruction that came with you fan assembly. Be sure that the fan orientation is correct for your chassis type and your fan assembly.
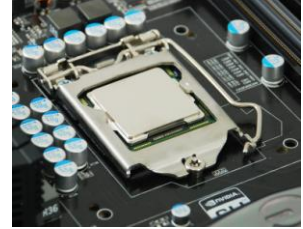
Installing System Memory (DIMMs)

Your new motherboard has four 240-pin slots for DDR3 memory. These slots support 256 MB, 512 MB, 1GB, 2GB, and 4GB DDR3 technologies. There must be at least one memory bank populated to ensure normal operation. Use the following the recommendations for installing memory.

❑ **One DIMM**: If using 1 DIMM (**Single Channel**), install into: **DIMM slot 1**.

❑ **Two DIMMs**: If using 2 DIMMs (**Dual Channel**), install into: **DIMM slots 1 and 3**.

❑ **Four DIMMS:** If using 4 DIMMs (**Dual Channel**), install into: **DIMM slots 2, 1, 4, and 3**.

DIMM Slot 2 (XMM2)
DIMM Slot 1 (XMM1)
DIMM Slot 4 (XMM4)
DIMM Slot 3 (XMM3)
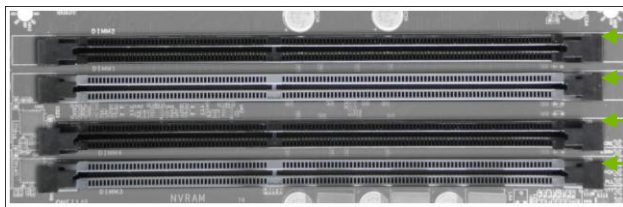
Use the following procedure to install memory DIMMs. Note that there is only one gap near the center of the DIMM slot. This slot matches the slot on the memory DIMM to ensure the component is installed properly.

1. Unlock a DIMM slot by pressing the module clips outward.

2. Align the memory module to the DIMM slot, and insert the module vertically into the DIMM slot. The plastic clips at both sides of the DIMM slot automatically lock the DIMM into the connector.

Installing the Motherboard

The sequence of installing the motherboard into a system case depends on the chassis you are using and if you are replacing an existing motherboard or working with an empty system case. Determine if it would be easier to make all the connections prior to this step or to secure the motherboard and then make all the connections. It is normally easier to secure the motherboard first.

Use the following procedure to install the I/O shield and secure the motherboard into the chassis.

Installing the I/O Shield

The motherboard kit comes with an I/O shield that is used to block radio frequency transmissions, protects internal components from dust and foreign objects, and promotes correct airflow within the chassis.

Before installing the motherboard, install the I/O shield from the *inside* of the chassis. Press the I/O shield into place and make sure it fits securely.

Securing the Motherboard into a System Case

Most system cases have a base with mounting studs or spacers to allow the motherboard to be secured to the chassis and help to prevent short circuits. If there are studs that do not align with a mounting hole on the motherboard, it is recommended that you remove that stud to prevent the possibility of a short circuit.

1. Carefully place the motherboard onto the stand offs located inside the chassis.

2. Align the mounting holes with the stand offs.

3. Align the connectors to the I/O shield.

4. Ensure that the fan assembly is aligned with the chassis vents according to the fan assembly instruction.

5. Secure the motherboard with screws.

Connecting Cables

This section takes you through all the necessary connections on the motherboard. This will include:

❑ Power Connections
   24-pin ATX power (**ATXPOWER**)
   4-pin ATX 12V power (**ATX_CPU**)
   Serial ATA II
❑ Internal Headers
   Front panel
❑ Expansion slots

24-pin ATX Power (ATXPOWER)

ATXPOWER is the main power supply connector located along the edge of the board next to the DIMM slots. Make sure that the power supply cable and pins are properly aligned with the connector on the motherboard. Firmly plug the power supply cable into the connector and make sure it is secure.

Power Connector
Plug power cable from system power supply to **ATXPOWER**

Connector	Pin	Signal	Pin	Signal
	1	+3.3V	13	+3.3V
	2	+3.3V	14	-12V
	3	GND	15	GND
	4	+5V	16	PS_ON
	5	GND	17	GND
	6	+5V	18	GND
	7	GND	19	GND
	8	PWROK	20	RSVD
	9	+5V_AUX	21	+5V
	10	+12V	22	+5V
	11	+12V	23	+5V
	12	+3.3V	24	GND

4-pin ATX 12V Power (ATX_CPU)

ATX_CPU the 4-pin ATX 12V power connection, is used to provide power to the CPU. Align the pins to the connector and press firmly until seated.

Connecting Serial ATA Cables

The Serial ATA II connector is used to connect the Serial ATA II device to the motherboard. These connectors support the thin Serial ATA II cables for primary storage devices. The current Serial ATA II interface allows up to 300MB/s data transfer rate.
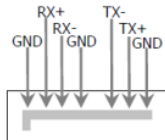
Front Panel Header (F_PANEL)

The front panel header on this motherboard is one connector used to connect the following four cables.

❑ **PLED**

Attach the front panel power LED
cable to these two pins of the connector. The Power LED indicates the system's status.

When the system is turned on, the LED is on. When the system is turned off, the LED is off.

❑ **PWRBTN**

Attach the power button cable from the case to these two pins. Pressing the power button on the front panel turns the system on and off rather than using the onboard button.

❑ **HDLED**

Attach the hard disk drive indicator LED cable to these two pins. The HDD indicator LED indicates the activity status of the hard disks.

❑ **RESET**

Attach the Reset switch cable from the front panel of the case to these two pins. The system restarts when the **RESET** switch is pressed.
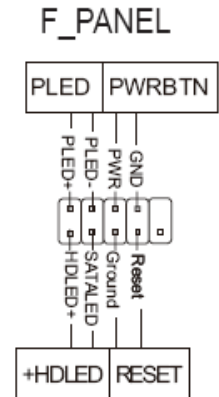
Expansion Slots

❑ **PCI Slots**

The PCI slot supports many expansion cards such as a LAN card, USB card, SCSI card and other cards that comply with PCI specifications. When installing a card into the PCI slot, be sure that it is fully seated. Secure the card's metal bracket to the chassis back panel with the screw used to hold the blank cover.

❑ **PCI Express x1 Slots**

The PCI Express x1 slot is designed to accommodate PCIe x1 cards, such as an EVGA Killer Xeno Network Card or Sound Card. The x1 slot provides 250 MB/sec bandwidth.

❑ **PCI Express x4 Slots**

The PCI Express x4 slot is designed to accommodate PCIe x1/x4 cards.

❑ **PCI Express x16/x8/x1 Slots**

These PCI Express slots are reserved for Graphic Cards and PCI Express x1 devices. The design of this motherboard supports multiple Graphic Card technology.

When installing a PCI Express Graphic Card, be sure the retention clip snaps and locks the card into place. Secure the card's metal bracket to the chassis back panel with the screw used to hold the blank cover.

Enter BIOS Setup

The BIOS is the communication bridge between hardware and software. Correctly setting the BIOS parameters is critical to maintain optimal system performance and stability.
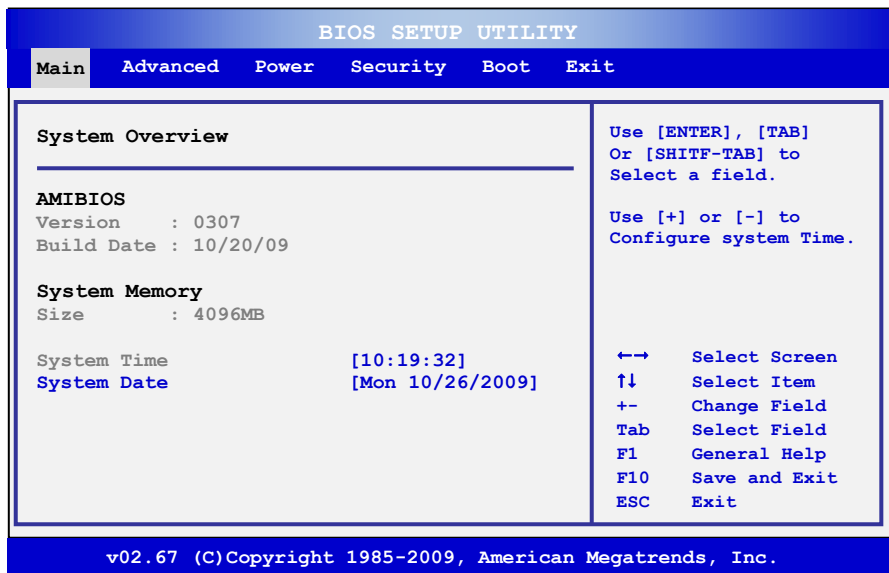
Verify/Change BIOS settings

Use the following procedure to verify/change BIOS settings.

1. Power on the computer.

2. Press the **Del** key when the following message briefly displays at the bottom of the screen during the Power On Self Test (POST).

   Press F2 to Load Defaults, DEL to enter Setup.

   Pressing **Del** takes you to the AMI BIOS CMOS Setup Utility.

The main menu allows you to select from the list of setup functions and two exit choices. Use the **+** and **-** keys to scroll through the options or press **Enter** to display the associated submenu. Use the ↑↓ arrow keys to position the selector in the option you choose. To go back to the previous menu, press **Esc**.

```
                     BIOS SETUP UTILITY
  Main    Advanced    Power    Security    Boot    Exit

   System Overview                              Use [ENTER], [TAB]
                                                Or [SHITF-TAB] to
                                                Select a field.
   AMIBIOS
   Version    : 0307                            Use [+] or [-] to
   Build Date : 10/20/09                        Configure system Time.

   System Memory
   Size       : 4096MB

   System Time              [10:19:32]          ←→    Select Screen
   System Date              [Mon 10/26/2009]    ↑↓    Select Item
                                                +-    Change Field
                                                Tab   Select Field
                                                F1    General Help
                                                F10   Save and Exit
                                                ESC   Exit

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Installing Drivers and Software

The CD that has been shipped with the EVGA H55 Motherboard contains the following software and drivers:

- ❑ Chipset Drivers
- ❑ Audio drivers
- ❑ LAN Drivers
- ❑ Intel(R) Management Engine Interface Driver
- ❑ Adobe Acrobat Reader
- ❑ User's Manual

Windows XP/Vista/7 Driver Installation

1. Insert the Intel H55 installation CD for the motherboard included in the kit.

2. The CD will autorun, install the drivers and utilities listed on the install screen. If the CD does not run, go to My Computer and click on the CD to open.